

REMARKS

Claims 1, 3, 4, 11-19, 26, 29-33, and 51-69 are pending in the application.

In the present submission Claims 3 and 4 have been canceled without prejudice or disclaimer; Claims 1, 14, and 51-69 have been amended. Thus, Claims 1, 11-19, 29-33, and 51-69 are now pending with Claim 1 being the sole independent Claim.

Amendments to the claims presented herein were previously presented in the After Final Response dated September 10, 2004. The Advisory Action dated October 19, 2004 found the proposed amendments, which were not entered, to overcome the objections under 35 U.S.C. 112, second paragraph, 35 U.S.C. 102(b) and 35 U.S.C. 112, first paragraph, see Advisory Action, page 2, paragraph 4. As to the rejections that the amendments were deemed to not have overcome, claim 4 is now canceled and the new matter rejection is moot.

Specification

A replacement Sequence Listing is included herewith. This Sequence Listing includes the <223> identifier including the relevant information for the Xaa positions in SEQ ID NO:66. The amino acid sequence in SEQ ID NO:66 was amended at position 294 where Ile was replaced by Xaa and this position defined as Ile or Thr. Support for these changes is found in the Specification as filed, page 41, line 13 to page 43, line 11; particularly page 42, line 23. No new matter is believed to be at issue.

Paragraphs beginning on page 12, line 10, page 13, line 3, and page 39, line 15:

The paragraphs beginning on page 12, line 10, page 13, line 3, and page 39, line 15 were amended to correct minor clerical errors. Support for these changes is found on the first and second rows of the continuation of Table 2 on page 41. Page 42 of the Specification was amended to identify the amino acids at positions 292 and 293 of Seq Id No.: 66 as "any amino acid," consistent with the original Sequence Listing as mentioned in the Advisory Action, page 3, paragraph 5. Further, position 329 is also identified as "any amino acid" consistent with the original Sequence Listing.

No new matter is believed to be at issue.

Claims

Claim 1 has been amended to more clearly express that which Applicants define

as their invention and to remove the definition of the variable amino acids which are now included in the Replacement Sequence Listing submitted herewith. Claim 1 also has been amended to remove "wherein the nucleic acid does not have the nucleotide sequence set forth in SEQ ID NO:9" since the nucleotide sequence set forth in SEQ ID NO:9 does not encode a polypeptide having the amino acid sequence set forth in SEQ ID NO:66. As seen in the Sequence Listing as filed, in SEQ ID NO:9 position 156 is a Thr (T) and position 295 is a Glu (E) while in SEQ ID NO:66 position 156 is Ile (I) and position 295 is Lys (K). Claim 1 is now directed to an isolated nucleic acid encoding a polypeptide with isoflavone synthase activity having the amino acid sequence of SEQ ID NO:66 wherein the Xaa positions are defined which is the same as originally filed.

Claim 14 has been amended to recite "wherein the second chimeric polynucleotide encodes a polypeptide comprising the maize C1 DNA binding domain, the maize transcription factor R, and the maize C1 activation domain." This change agrees with the understanding of the R region in the Office Action of March 10, 2004. The R region included consists of the entire coding region of the Lc allele of R (amino acids 1 through 160). Support for the amendment to Claim 14 may be found in the specification as filed, see for example page 49, lines 25-26.

Claims 51-69 have been amended to remove the word "fragment" from "the nucleic acid fragment of Claim 1."

Claim 69 has been amended to more clearly define that which Applicants consider their invention. Support for these changes is found in the specification as filed. No new matter is believed to be at issue.

Claims 3 and 4 have been canceled.

According to the Office Action of March 10, 2004 Claims 51-69 are withdrawn as being drawn to a non-elected invention. Applicants respectfully traverse. The polynucleotides of Claims 51-69 are within the scope of the consensus sequence and merely have defined amino acids at each of the positions where the consensus sequence has unsures. As stated in the Specification as filed, the polynucleotides of Claims 51-69 may be detected by the same nucleic acid probes. Rejoinder of Claims 51-69 is hereby respectfully requested.

Applicants believe the forgoing to be fully responsive to the Office Action dated March 10 and the Advisory Action dated October 19, 2004.

In view of the foregoing, allowance of Claims 1, 11-19, 26, 29-33, and 51-69 of the above-referenced application is respectfully requested.

Respectfully submitted,



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